R O M A N I A

MINISTRY OF ENVIRONMENT AND WATER MANAGEMENT
General Directorate of Waste and Hazardous Substances
Libertatii Blv, No.12, Bucharest; Phone/fax: (40-21)316.02.98;

Subject: Decision 23/9
Letter related to the national report of Romania regarding the information on mercury

Your Excellency,

We are referring to you letter dated 20 March 2006 requiring to parties to submit report in connection with mercury trading information.
The data collected at the being time in Romania are representing a base for the national report and there are corresponding to a first assessment regarding the existing situation of mercury in Romania and we are kindly asking to consider these data as preliminary.

Taking into account the importance of adequate management for environment and human health, Ministry of Environment and Water Management will continue the process of collecting data and we kindly ask you to reserve us the right to come with additional information as soon as possible.

Romania estimates that all the action from Mercury Strategy will be transposed in the national legislation at the time when the new Mercury Directive will enter into a force and we will need an approximately 2 years for implementing that provision in the specific industrial sector (e.g. cloralkali industry).

Having this into regard we do consider as important steps for Romania to finalize within the next period the preliminary collected data verification. The verification and assessment of collected will take into account the following issues: an inventory of these companies, the rising of understanding about the new mercury legislation, the effects of the new legislation on Romanian industry.
Our data collected are presented as annexed.

Sincerely your,

DIRECTOR
Elena DUMITRU

ATTN. H.E. Maged YOUMES
Head of Chemicals Office, DTIE, UNEP - Geneva

Mercury flow in Romania

Uses:

- clor-alkaly industry, fluorescent lamps with mercury vapours, measurement and control equipment, electronic equipment, thermometer, barometers, manometer, etc, dental amalgam, sterile sludge from coal production, analysis laboratory, etc.

In Romania there is no technological installation in place for mercury primary production or for battery and fluorescent lamps production.

At **MINVEST (**National Company of Cuprum, Gold and Iron) the mercury is used as secondary raw material in mixing process for keeping the precious materials. At the end of technological process the mercury is totally recovered.
Recovered mercury quantities from cassation and non-operative measurement equipments are temporarily stored in safe condition and in conformity with the legal hazardous use national technical norms.

The stored quantities are resulting from the following activities:

- Mercury resulted in time from the installation decommissioning (by which the quantities were recovered and reused).
- Mercury resulted from the transition to mercury-free technology.
- Mercury took in custody by the Police Inspectorates following the inspection action.

In clor-alkaly industry there are three electrolysis technologies:

- Mercury electrolysis
- Membrane electrolysis
- Diaphragm electrolysis

Article	**Quantity (tonnes) 2004**	**Quantity (tonnes) 2005**
Imported metallic mercury	0,01134000	10,00933900
Imported compounds mercury	0,00067700	0,03357500
Imported products which contains mercury	0,01217150	10,04291420
Total mercury stock	226,71151410	206,64686202
Metallic mercury stock	43,08982920	13,35895340
Compounds mercury stock	183,62168490	193,28814362
Mercury consumption	13,67494150	10,89127710

Total emission:	325,22889793	244,20613354
• Water	152,76511994	102,20331374
• Air	0,10377800	0,65281980
• Soil	172,36000000	141,37000000
Mercury in waste	2672,25310350	2677,19388490
Recycled	131,47644000	132,13410000
o Incinerated	0,00000000	0,00000000
o Awaiting disposal	2557,49641415	2561,19142309
o Exported	0,00000000	4,90000000
o Other	1,64373800	2,17880000
Total mercury in devices:	8,78441390	9,80272356
o Medical thermometers	0,07501050	0,08138450
o Industrial measurements instruments	8,66939598	9,61410906
o Mercury lamps	0,04000742	0,10723000
Sludge cakes mercury contains from tailing ponds (Compania Nationala a Huilei SA, Petrosani Reg.5)	2627,00000000	2627,00000000
The sterile sludge with mercury contains from Santimbru-Bai S.C. Geolex S.A. Miercurea-Ciuchas a concentration of 0.05-6 g mercury/Kg sterile. It could not be estimated the total quantity of mercury from 5000 cubic meters because the sterile density is unknown.		

Romania shut down 4 Mercury Cathode Electrolysis units from existing 5 in the last 15 years. 2 new Membranes Electrolysis units were also opened. At this moment we have only one mercury electrolysis cell at OLTCHIM.

The current European strategy agreed by the main Chlorine manufacturers allows the functioning of Mercury Cathode Electrolysis units until 2014.
The situation regarding chlorine and caustic soda in Romania was very similar with the global situation.

The following table shows the situation of chlorine and caustic soda production in Romania:

No	Company/ Type of equipment	Year on putting into work	Capacity (NAOH tons/year)	Closing year
1	**OLTCHIM Rm Valcea**			
	Mercury Cathode electrolysis I	1968	100000	1999
	Mercury Cathode electrolysis III	1974	210000	**functioning**
	Diaphragm electrolysis	1984	100000	1993

	Membranes electrolysis	2000	120000	**functioning**
2	**CHIMCOMPLEX SA Borzesti**			
	Mercury Cathode electrolysis I	1960	65900	1992
	Mercury Cathode electrolysis II	1976	105200	1991
	Electrolysis with mercury cathode	1974	52750	closed
	Mercury Cathode electrolysis III	1980	100000	closed
	Membranes electrolysis	1999	120000	**functioning**
3	**U.Ch.TURDA**			
	Mercury cathode electrolysis	1973	18000 or 24600	1991
4	**CELHART DONARIS Braila**			
	Mercury cathode electrolysis	1959	17000	closed
5	**VERACHIM Giurgiu**			
	Diaphragm electrolysis	1981	200000	closed

Until 1991, the NaOH production in Romania was 995 450 tones/ year, produced in 10 equipments (installations): Ramnicu Valcea, Borzesti, Turda, Braila, Giurgiu. There were used 2 methodes: Mercury Cathode Electrolysis and Diaphragm Electrolysis. The company from Ramnicu Valcea produced 45% of the entire NaOH quantity.

Between 1991-1999, 9 of the 10 equipments (994 450 tones/year) had been closed. Only the Mercury Cathode Electrolysis installation (unit) from Oltchim Ramnicu Valcea was operable. It produced 210 000 NaOH tones/ year. The decreasing chlorine production in Romania had both ecological and economical (the involution of Romanian Chemistry industry) reasons.

Between 1999–2000, 2 Membranes Electrolysis equipments have been opened by converting the Diaphragm electrolysis installation at Oltchim Ramnicu Valcea and the Mercury Cathode Electrolysis installation at Borzesti.

Romanian Electrolysis installations produce 450 000 tones/ year. 210 000 tones/year of them are still made in Mercury Cathode Electrolysis installation at Oltchim Ramnicu Valcea. At present 7, 3 tones are store in safety condition before recovery.

The conversion of Mercury Cathode Electrolysis and Diaphragm Electrolysis equipments is a necessity. In 1997, Oltchim Ramnicu Valcea started the conversion process. The Diaphragm Electrolysis installation has been converted in Membranes Electrolysis installation, UHDE technology. The process ended in 1999. The new equipment actually substitutes two old ones (Diaphragm Electrolysis and Mercury Cathode Electrolysis I).

Between 2000-2004, Mercury storages from the old installations were progressively used in the new one. In 2004 started the decontamination process, which lasted 12 months and have a value over 1 million EURO.

Oltchim has a low capacity burning facility for residuals containing Mercury. Therefore the burning process in order to recover the Mercury from the residuals is a long lasting one. The company uses the recovered Mercury in the Mercury Cathode Electrolysis III process and wants to eliminate the Mercury emissions totally until 2014. This dead line, named “the transition period IPPC” is justified by the following reasons:
- the high costs of the conversion process : 45 mil.Euros;
- technology and production problems regarding the conversion process in order to minimize the time between the shutting down of the Mercury unit and the opening of the Membranes Electrolysis unit;

Until then, Oltchim Ramnicu Valcea is implementin a plan for the decreasing Mercury/ Chlorine consumption.
The water and air Mercury emissions are constantly verified and they are under legal limits established by national legislation.

The data source for current external trade statistics (including import and export of mercury) are data from the customs declarations collected by National Customs Administrations, according to the Extrastat statistical system. The Romanian National Institute of Statistics (NSI) processed these data and disseminate them at national and international level. In this context, NSI provide statistical data to the Comtrade database, on an annual basis.
In the Comtrade database are available all data on mercury (CN code 280540) which are registered in the import and export customs declarations at national level (in terms of quantity and value).

Concerning the destination or final utilisation of the good, these information are not available on customs declarations. As it is known, the registration of external trade statistics data is according to the Combined Nomenclature. What we do for our statistics is to use the conversion keys between this nomenclature and other nomenclatures as

SITC, Broad Economic Categories and National Account System, NACE, which present data on different destinations or by different processing phases. BUT the real destination of each transaction with mercury (or with other good) is not known from statistical point of view.